



**UNITED STATES DEPARTMENT OF COMMERCE**  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/997,368	12/23/97	HIMURO	048849

IM31/0127  
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EXAMINER  
MAKI, S

ART UNIT  
1733

PAPER NUMBER

DATE MAILED: 01/27/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/997368

Applicant(s)

Himuro

Examiner

Maki

Group Art Unit

1733

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-10 is/are pending in the application.
- ☐ Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-10 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

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1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2) Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 16, "the steeply slant groove is" should be --the steeply slant grooves are-- since there are plural (instead of one) steeply slant grooves.

In claim 1 line 18, "the gently slant groove is" should be --the gently slant grooves are-- since there are plural (instead of one) gently slant grooves.

In claim 1 last six lines, the description of the tapered top surface is ambiguous. For example, "a longitudinal direction of the block" does not clearly indicate a position of the block.

In claim 2 line 2, "the steeply slant groove" should be --each steeply slant groove-- since there are plural steeply slant grooves.

In claim 3 line 2, "the gently slant groove" should be

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--each gently slant groove-- since there are plural steeply slant grooves.

In claim 4 line 2, "the block" should be --each block-- since there are plural blocks.

In claim 5, it is not clear what if any additional limitation is required by "the steeply slant groove is communicated with the gently slant groove". For example, which steeply slant groove is communicated with which gently slant groove - it being noted that the number of gently slant grooves is two times of more than the number of steeply slant grooves. Another example, is an additional groove required for the communication?

In claim 6 line 4, "the tread end" should be --a tread end-- to avoid a minor antecedent basis problem.

In claim 7 line 2, "the gently slant groove" should be --each gently slant groove-- since there are plural steeply slant grooves.

Claim 8 which recites "an extending direction of the side formed in the block differs between the central zone and the side zone" is confusing and ambiguous. FIRST: an extending direction of the side formed in the block (in contrast to a side of a block) is not understood - it being noted that there is no

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antecedent basis for "the side formed in the block". SECOND: Does the description in claim 8 require one side (in contrast to two sides) to be in the central and side zones? THIRD: What additional limitation, if any, is required by "differs"? In other words, is the "difference" the inclination of the side which is already required by claim 1 since the block(s) are formed by the slant grooves which share a sidewall with the block(s)?

In claim 9, there is no clear antecedent basis for "the blocks at both side zones". Does claim 9 require three rows of blocks?

In claim 9, "in parallel" (both occurrences) should be --parallel-- to make claim 9 less awkward.

In claim 9, "the gently slant groove to be opened to the circumferential side groove" should be --a gently slant groove-- to avoid antecedent basis problems and ambiguity as to whether or not opening is required.

In claim 10, "the steeply slant groove" should be --a steeply slant groove-- to avoid an minor antecedent basis problem.

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3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '332 (EP 627332) in view of Europe '718 (EP 705718) and Japan '025 (JP 5-319025) and optionally either Europe '685 (EP 688685) or Japan '215 (JP 6-40215).

Europe '332 discloses a pneumatic radial tire (for example 205/ 50-R-15) comprising a tread, which can either be non-directional or directional (column 10 lines 41-45), comprising blocks defined "circumferential grooves" (2) and "slant grooves" (8) each of which include a steeply slant groove (inclined at 15 to 25 degrees) which opens to a "circumferential groove" (2) and a gently slant groove (inclined at 70 to 105 degrees) which opens to a tread end. Europe '332 also shows additional "gently slant grooves" (9) parallel to and between the gently slant grooves (8) so the number of gentle slant grooves is two times or more the number of steeply slant grooves. Europe '332 provides more gently slant grooves than steeply slant grooves so that the

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number of blocks at a side zone is greater than the number of blocks at a central zone to reduce noise (the blocks in the central zone are larger than the blocks in the side zones).

Europe '332 does not disclose chamfering each block defined by a center groove and the steeply slant grooves.

As to claims 1 and 4, it would have been obvious to one of ordinary skill in the art to chamfer each block of Europe '332 which is defined by a circumferential groove and steeply slant grooves in view of (a) Europe '718's teaching to chamfer blocks defined by steeply slant grooves to smoothen bifurcation of water, ensure rigidity, and develop steering stability and (b) Japan '025's teaching to chamfer blocks defined by steeply slant grooves to avoid wear.

As to each block having a sipe, note portion 10a of Europe '332 which has a width of less than 1 mm. IN ANY EVENT: As to claims 1, 9 and 10, it would have been obvious to provide sipes in the blocks of Europe '332 as set forth in claim 1 or claim 9 or claim 10 in view of: (a) Europe '332's teaching to include a "sipe" (portion 10a) in a block in a side zone, (b) Europe '718's teaching to include sipes in blocks in a central zone of a tread to improve traction and optionally (c) the

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arrangement/orientation of sipes suggested by Europe '685 or Japan '215.

As to claims 2, 3 and 5, note the steeply slant grooves and gently slant grooves of Europe '332.

As to claims 6 and 7, the limitation of the circumferential side groove would have been obvious in view of Europe '332 and Japan '025's teaching to provide a "circumferential side groove" between a tread end and the equatorial plane.

As to the "limitation" of claim 8, note the shape of the blocks as shown and described by Europe '332.

5) ALLOWABLE SUBJECT MATTER

Claim 10 would be allowable if rewritten to (1) overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action, (2) to include all of the limitations of the base claim and any intervening claims and (3) amended to include the subject matter described at pages 8-9 and shown in figure 1 - figure 1 showing the arrangement and configuration of two sipes 6 formed in a block at the central zone.

6) The remaining references are cited of interest.

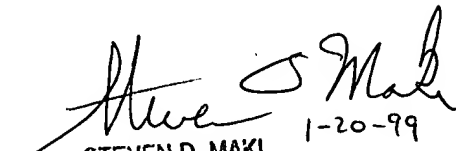
7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (703) 308-2068. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball, can be reached on (703)



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308-2058. The fax phone number for Art Unit 1733 is (703) 305-7718. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Steven D. Maki  
January 20, 1999

  
STEVEN D. MAKI  
PRIMARY EXAMINER  
~~GROUP 1300~~  
AU 1733  
1-20-99